Ch 6 Review Game

1. Which is NOT correctly matched?
   1. cellulose is a complex carbohydrate polymer that makes up plant cell walls
   2. Metabolism is all the chemical changes that occur within an organism
   3. Peptide bonds form between all organic molecules
   4. Solutions are mixtures where one substance is evenly distributed in another
2. Forms Hydrogen ions in water a. Acids b. bases
3. Covalent bonds \_\_\_\_electrons a. Share b. transfer
4. Bonds between amino acids in proteins are
   1. Ionic b. Peptide
5. \_\_\_\_\_\_\_are atoms with different number of neutrons
   1. Allotropes b. isotopes
6. Glucose and fructose are NOT
   1. compounds with the same formula but with different arrangements of atoms
   2. Combine in condensation to form sucrose
   3. lipids
7. Match the Organic Molecule building blocks (polymers)

The Monomers are

* Amino acids
* Nucleotides
* Monosaccharides
* glycerol & 3 fatty acids
  1. Carbohydrates
  2. Lipids
  3. Proteins
  4. Nucleic acid

1. Unsaturated bonds are different because
2. They are all single bonds
3. They have a double bond- More than one single bond.
4. How are isotopes used in medicine?
   1. Tracing the path of blood flow c.. X-rays
   2. CAT scans d. All of these
5. How many electrons are in the 2nd energy level of oxygen? A. 2 b. 4 c. 6
6. The random movement of atoms is
   1. Called Brownian motion
   2. Causes diffusion
   3. Occurs until there is no concentration gradient
7. C-12 & C 14 are a. Isotopes b. Allotropes c. ions
8. A compound which comes from living organisms and contains carbon is calleda. A mixtur b. Organic c. Polar
9. Polymers are NOT
10. Large molecules
11. Made of monomers
12. Occur in carbohydrates, lipids, proteins and nucleic acids
13. Usually formed by covalent bonding
14. Are put together by hydrolysis
15. Which is the strongest base?
    1. 14 b. 9 c. 7 d. 2
16. Proteins
    1. Use peptide bonds to form glycerol and glycogen
    2. are composed of C, H, O, N, P
    3. are made of units called nucleotides
    4. which affect the rate of reactions are called enzymes
    5. protein enzymes are used to put together amino acids in the process hydrolysis
17. Which of the following is NOT a chemical reaction?
    1. Photosynthesis
    2. Respiration
    3. Making chocolate milk
    4. Burning paper

In a chemical reaction there is a change in properties.

In physical reactions the properties do not change

1. Which is NOT correctly matched about water?
   1. H2O is a chemical compound
   2. Water is a polar molecule
   3. Water dissolves ionic and molecular compounds because of its polarity
   4. When water is added during hydrolysis, it joins monomers into polymers.
2. Which is NOT true about an atom?
3. The nucleus contains protons & neutrons
4. Electrons move in regions called electron clouds
5. When an atom gains an electron, it becomes a positive ion
6. Ionic bonds transfer electrons to become more stable
7. Polar molecules have an uneven distribution of charge
8. Which statement is NOT true about Carbon?
   1. Carbon can share 4 electrons
   2. Carbon has 4 electrons in the outside shell
   3. Carbon molecules are called organic
   4. Carbon is not found in lipids
   5. Organic Molecules have covalent bonds
9. How many hydrogen atoms are in glucose below?  
   6CO2 + 6H20  C6H12O6 + 6 O2
   1. 2 b. 6 c. 12
10. Correctly match
11. C, H, O
12. CH2O
13. C, H, O, N
14. C, H, O, N, P
    1. proteins
    2. nucleic acids
    3. lipids
    4. carbohydrates
15. Which indicates dynamic equilibrium?-

when the rate of motion is the same in and out of a cell. Diffusion occurs until there is no concentration gradient (difference in concentration)

1. Which type of compounds may be polymers?
2. Carbohydrates b. Lipids c. Proteins d. Nucleic acids
3. All of these
4. Electrons are
5. Negatively charged
6. Outside the nucleus in areas called shells, clouds or levels
7. Both are correct
8. Water dissolves materials due to its \_\_\_\_\_\_\_\_\_\_\_\_
   1. Polarity- The + and – ends pull molecules apart
9. What process is used?

* Molecules are broken down by \_\_\_\_\_\_\_\_\_
* Molecules are formed by \_\_\_\_\_\_\_\_\_\_\_\_
* (Condensation/dehydration synthesis or hydrolysis)
  1. Molecules are broken down by hydrolysis
  2. Molecules are formed by Condensation/dehydration synthesis